AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

Claim 1 (currently amended): A method of detecting particles, comprising the following steps:

emitting a beam of radiation into a monitored region;

capturing images of the monitored region, having one or more image segments, with an image capture device; and

in a data processor, detecting a variation in scattered radiation in images of the monitored region indicating the presence of the particles,

wherein the detected variation is an increase in scattered radiation intensity.

Claim 2 (previously presented): A method as claimed in claim 1, further comprising the step of modulating the beam of radiation.

Claim 3 (original): A method as claimed in claim 2, wherein scattered radiation within the zone is represented in one or more segments of a corresponding image, which allows for the location of the particles in the region to be identified.

Claim 4 (currently amended): A method ~~as claimed in claim 1~~of detecting particles, comprising the following steps:

emitting a beam of radiation into a monitored region;

capturing images of the monitored region, having one or more image segments, with an image capture device; and

in a data processor, detecting a variation in scattered radiation in images of the monitored region indicating the presence of the particles,

wherein the location of the particles is determined in accordance with a geometric relationship between the locations of a source of emitted radiation, a direction of the emitted radiation and a point of image detection wherein, the geometric relationship is determined from the images.

Claim 5 (canceled).

Claim 6 (currently amended): ~~The method as claimed in claim 1~~A method of detecting particles, comprising the following steps:

emitting a beam of radiation into a monitored region;

capturing images of the monitored region, having one or more image segments, with an image capture device; and

in a data processor, detecting a variation in scattered radiation in images of the monitored region indicating the presence of the particles,

wherein the increase is assessed with reference to a threshold value.

Claim 7 (currently amended): ~~The method as claimed in claim 1~~A method of detecting particles, comprising the following steps:

emitting a beam of radiation into a monitored region;

capturing images of the monitored region, having one or more image segments, with an image capture device; and

in a data processor, detecting a variation in scattered radiation in images of the monitored region indicating the presence of the particles,

wherein the threshold value is calculated by averaging integrated intensity values from the images.

Claim 8 (previously presented): The method as claimed in claim 7, further comprising the step of assigning different threshold values for different spatial positions within the region.

Claim 9 (previously presented): A method as claimed in claim 1, further comprising the steps of directing the radiation along a path and identifying a target in the images, the target representing a position at which the radiation is incident on an objective surface within the region.

Claim 10 (previously presented): A method as claimed in claim 1, wherein a location of the target in the images is monitored and the emission of radiation is ceased in response to a change in the location of the target.

Claim 11 (previously presented): A method as claimed in claim 1, further comprising the step of identifying a location of an emitter in the images.

Claim 12 (previously presented): A method as claimed in claim 1, further comprising the step of determining an operating condition of the emitter based on radiation intensity at the identified location of the emitter.

Claim 13 (previously presented): A method as claimed in claim 1, wherein the images are processed as frames which are divided into sections which represent spatial positions within the monitored region.

Claim 14 (previously presented): A method as claimed in claim 1, further comprising the steps of monitoring intensity levels in associated sections of the images and assigning different threshold values for different spatial positions within the region which correspond to the associated sections.

Claims 15-34 (canceled).

Claim 35 (previously presented): Apparatus adapted to detect particles, said apparatus comprising processor means adapted to operate in accordance with a predetermined instruction set, said apparatus, in conjunction with said instruction set, being adapted to perform the method as claimed in claim 1.

Claim 36 (previously presented): A computer program product comprising; a computer usable medium having computer readable program code and computer readable system code embodied on said medium for detecting particles within a data processing system, said computer program product comprising; computer readable code within said computer usable medium for performing the method steps of claim 1.

Claims 37-53 (canceled).